U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Niagara Falls Boulevard Radiological Site - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region II

Subject: **POLREP #24**
Niagara Falls Boulevard Site Removal Action
Niagara Falls Boulevard Radiological Site
A23Q
Niagara Falls, NY
Latitude: 43.0965960 Longitude: -78.9520670

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From: Peter Lisichenko, On-Scene Coordinator
Date: 12/6/2019
Reporting Period: 11/23/2019 through 12/06/2019

1. Introduction

1.1 Background

Site Number:	A23Q	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	9/27/2016
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	6/1/2016	**Start Date:**	6/1/2016
Demob Date:		**Completion Date:**	
CERCLIS ID:	NYN000206699	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category
Removal Assessment and Removal Action

1.1.2 Site Description
The 9540 Niagara Falls Boulevard Site (CERCLIS ID NYN000206699), hereinafter referred to as “the NFB Site” or “the Site”, is located in a mixed commercial and residential area of Niagara Falls, New York. The site consists of two parcels, namely 9524 and 9540 Niagara Falls Boulevard. This site encompasses approximately 2.53 acres. Currently, the 9524 Niagara Falls Boulevard property contains a bowling alley and an asphalt parking lot; the 9540 Niagara Falls Boulevard property contains a vacant building and an asphalt parking lot. Both businesses are currently active. The properties are bordered to the north by a wooded area; to the east by a church; to the south by Niagara Falls Boulevard, beyond which is a residential area; and to the west by a hotel and residential area.

In 1978, the U.S. Department of Energy conducted an aerial radiological survey of the Niagara Falls region and found more than 15 properties having elevated levels of radiation above background levels. It is believed that, in the early 1960s, slag from local industrial operations was used as fill on the properties prior to paving. Based on the original survey and subsequent investigations, it is believed that the radioactive Union Carbide slag was deposited on the NFB Site.

1.1.2.1 Location
9524-9540 Niagara Falls Boulevard, Niagara Falls, NY

1.1.2.2 Description of Threat
Radioactive contamination

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results
In September/October 2006 and May 2007, New York State Department of Environmental Conservation (NYSDEC) conducted radiological surveys of the interior and exterior of both properties on several occasions using both an Exploranium-135 and Ludlum 2221 detectors. With the exception of an office area and storage space at 9540 Niagara Falls Boulevard that was constructed after the original building directly on top of the asphalt parking lot, interior radiation levels were relatively low. The highest reading in the newer area was 115 µR/hr (microroentgen per hour); elsewhere throughout the building, radiation levels generally ranged between 10 and 20 µR/hr. Exterior readings taken at waist height generally ranged between 10 and 350 µR/hr, while the maximum reading of 600 µR/hr was recorded on contact (i.e., at the ground surface). At a fenced area behind the building located at 9540 Niagara Falls Boulevard, waist-high readings ranged between 200 and 450 µR/hr, and on-contact readings ranged between 450 and 750 µR/hr. Elevated readings were also observed on the swath of grass between the 9524 Niagara Falls Boulevard property and the adjacent property to the west that contains a hotel, and in the marshy area beyond the parking lot behind the buildings. Two biased samples of slag were collected from locations that exhibited elevated static Ludlum detector readings: one sample was collected from an area of loose blacktop that indicated readings of 515,905 cpm (counts per minute) on the Ludlum detector, and one slag sample was collected in the marshy area that indicated readings of 728,235 cpm on the Ludlum detector.

During a reconnaissance performed by the New York State Department of Health (NYSDOH) and NYSDEC on July 9, 2013, screening activities showed radiation levels at 200 µR/hr with a hand-held Pressurized Ionization Chamber (PIC) unit around an area of broken asphalt and 500 µR/hr from a soil pile containing slag at the NFB Site. Readings over 600,000 cpm were recorded with a sodium iodide 2x2 scintillation detector from the soil and slag pile.

The NFB Site was referred to the EPA by the NYSDEC and NYSDOH on July 21, 2013. No other removal actions have been taken by other government or private parties prior to this request.

On September 10, 2013, EPA's Technical Support Contractor, WESTON Solutions, Inc. Removal Support Team (RST) conducted a gamma radiation screening of the 9524 Niagara Falls Boulevard property using a Ludlum 2221 Scaler Ratemeter. On December 4–5, 2013, further radiological survey information was obtained from the 9524 and 9540 Niagara Falls Boulevard properties, as well as the church property located further east of the two site parcels. The highest gamma radiation screening results were recorded from the exposed soil area in the rear, northern portion of the 9540 Niagara Falls Boulevard property.

On December 5–7, 2013, RST documented the areas of observed contamination at the NFB Site. The areas of observed contamination were delineated by measuring the gamma radiation exposure rates, and determining where the gamma radiation exposure rate around the source equals or exceeds two times the gamma radiation at site-specific background rates. The areas of observed contamination are defined by site-attributable gamma radiation exposure rates, as measured by a survey instrument held 1 meter above the ground surface, which equal or exceed two times the site-specific background gamma radiation exposure rate. At the NFB Site, an area of approximately 168,832 ft^2 was found to have gamma radiation levels which exceed two times the background measurement of 8,391 cpm. PIC data were also collected at several points to confirm the boundary.

On December 11, 2013, RST collected a total of 16 soil samples (including one environmental duplicate sample) and three slag samples from fifteen boreholes advanced throughout the NFB Site and the First Assembly Church property located directly adjacent to the east/northeast of the site property, using hollow-stem auger drilling methods. The two soil samples collected on the First Assembly Church property are to document background conditions. At each sample location, soil samples were collected directly beneath slag; at locations where slag was not present, the soil sample was collected at the equivalent depth interval.

The soil samples were analyzed for metals by inductively coupled plasma (ICP) technique and mercury by manual cold vapor technique in accordance with SW-846 Method 6010C and 7471B, respectively. In addition, soil and slag samples were analyzed for isotopic thorium and isotopic uranium by alpha spectrometry according to DOE method A-01-R, and radium-226 and radium-228 by gamma spectrometry according to DOE Method GA-01-R. Analytical results indicate concentrations of radionuclides found in the slag and soil to be significantly higher than at background conditions (i.e., greater than 2x background concentrations).

On April 28, 2014, RST personnel collected radon and thoron concentration measurements from locations on and in the vicinity of the NFB Site. At the selected locations in background areas, above the source material, and off the source area, radon and thoron concentration measurements in pCi/L were collected with RAD7 radon detectors. The radon and thoron measurements were collected at heights of one meter above the ground surface. The measurements included uncertainty values, which were taken into account to calculate adjusted concentrations for evaluation of observed release in the air migration pathway. There were no radon or thoron concentrations that exceeded the site-specific background, nor were there any adjusted concentrations that equaled or exceeded a value two-standard deviations above the mean site-specific background concentration for that radionuclide in that type of sample (i.e., there is no evidence of an observed release to air from site sources).

Based on the Pre-Remedial Evaluation, the site did not meet the minimum criteria necessary to be placed on EPA's "National Priorities List", a list of hazardous waste sites in the U.S. which are eligible for long-term cleanup financed under the federal Superfund program. However, it was subsequently determined that material contaminated with radiation was located beneath the asphalt parking lot shared by the bowling alley and a building supply center. After further site investigation, it was determined that a removal action was warranted (see approved Action Memorandum).

2. Current Activities
2.1 Operations Section
2.1.1 Narrative

For Site activities from July 2015 to August 2017, please reference Pollution Reports #1 through #16.

September 2018 to Present

For this mobilization,EPA's Emergency and Rapid Response Services (ERRS) contractor has been tasked with the removal and disposal of the remaining radioactive slag material that has been identified throughout the NFB Site. The material is to be excavated and staged on-site. ERRS is also to arrange and execute the transport and disposal of this excavated material to a Nuclear Regulatory Commission (NRC) approved facility. Once the material is removed, the area is to be backfilled to grade (with approved off-site material that meets NYSDEC Unrestricted Use Criteria) and restored to current use.

EPA's Superfund Technical Assistance and Response Team (START) is to provide technical support to the project. Daily tasks to include: Scanning the bottom and sidewalls of the excavations with a Ludlum 2241 radiological survey meter (with 3x3 sodium iodide scintillator); collection of post-excavation confirmation samples; analysis of confirmation samples at the on-site laboratory; screening of disposal trucks via Pressurized Ion Chamber; and site documentation.

2.1.2 Response Actions to Date

July 2015 through August 2017
Reference Pollution Report #1 through #16.

September 2018 to October 2018
Reference Pollution Report #17 and #18.

On October 14, 2019, EPA's ERRS contractor, Guardian Environmental Services, Inc. and START contractor, Weston Solutions, Inc., mobilized to the Site to reinitiate the removal action. The removal action will include the excavation and disposal of radioactive material, both internal and external to on-site structures, that had been identified during the previous assessment activities.

From October 14, 2019 through October 20, 2019, Site activities included receiving heavy equipment; setting up the on-site laboratory; clearing and grubbing the vegetation in Excavation Area (EA) 9 and EA 12; setting up the staging area, erecting temporary fencing along the perimeter of the excavation area; and establishing a excavated materials stockpile area in EA 12. The excavation of EA 9, EA 10, EA 11, and EA 12 (with the exception of the stockpile area) was initiated and completed during the period. The backfill of these areas, with 2-inch crusher run (with fines), was initiated and ongoing. In addition, the excavation and restoration of the northern vestibule at the Rapids Bowling Center was completed. This included the demolition of the concrete floor, removal of the underlying slag material, backfill of the excavation, and pouring of a new concrete floor.

From October 21, 2019 through November 1, 2019, the ERRS contractor continued to receive backfill material (crusher run gravel with fines) and distribute the material throughout all open excavation pits. EA 9, EA10, and EA11 have been completed. Geofabric has been installed along the disposal truck haul road footprint to help stabilize the backfill along the route. Scales have been delivered to the Site and will be set up during the next reporting period.

Preparations for work at the building supply center was initiated this week. Working with the business owner, EPA and the ERRS contractor began to implement logistical strategy for removal work in the storage rooms referenced as ST-4 and ST-5. Tasks included mobilizing a sea box for use as temporary storage and preparing to install a new doorway to access ST-4 from the outside with equipment. It is anticipated the removal of the concrete floor in ST-5 will begin on November 4, 2019. Work at ST-4 will will be implemented shortly thereafter and work on both areas will be conducted simultaneously.

From November 2, 2019 through November 8, 2019, the backfill of the open excavation area in EA 12 has been completed. The remaining excavation and backfill of EA 12 is pending the transportation and offsite disposal of the waste material pile that is currently staged in EA 12. In addition, the excavation and backfill of ST-5 in the building supply center has also been completed. Work on ST-4 has been initiated and included the clearing of inventory from this area. Preparations are also being made to create an egress through the north CMU wall which will be used for both equipment and materials.

From November 9, 2019 through November 15, 2019, the pouring and finishing of the concrete floor in ST-5 was completed. Once sufficiently cured to support light weight items, the contents of ST-4 were moved to ST-5. A doorway was installed through the north wall of ST-4 to allow for access of heavy equipment. In addition, the CMU that had separated the former compressor room and the window room was removed. Demolition work has been initiated on the concrete floor itself. Also during this period, ERRS contractor continued to receive and stockpile shipments of crusher run gravel for use as backfill.

From November 16, 2019 through November 22, 2019, ERRS contractor completed the excavation and backfill of ST-4 in the building supply center. The area has also been prepared for the pouring of a new concrete floor which is scheduled for the week of December 2, 2019. Site operations were suspended the week of November 25, 2019 in observance of the Thanksgiving Holiday. Site operations to resume on December 2, 2019.

From December 2, 2019 through December 6, 2019, the pouring and finishing of the concrete floor in ST-4 was completed. Once sufficiently cured, light weight items from WH-2 was moved into the area. Remaining items from WH-2 were consolidated into WH-3. Demolition of the concrete floor in WH-2 was initiated on December 4, 2019. Removal work in this area is expected to continue through the next reporting period.

To date (for the current mobilization), approximately 3,492 cubic yards of material has been excavated and staged for disposal. The Transportation and disposal to the US Ecology disposal facility in Belleville, Michigan, a facility compliant with EPA Offsite Rule, continues. To date, approximately 2,670 tons of material has been shipped off-site.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

PRPs are being investigated by USEPA Enforcement Team.

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2.2 Planning Section

2.2.1 Anticipated Activities

Complete the removal activities at the Site by Spring 2020.

USEPA has been coordinating with NYS, Niagara County, and local representatives throughout the assessment/removal process.

2.2.1.1 Planned Response Activities

Building Supply Center

Removal and restoration of the following areas (rooms)
WH-2: Warehouse Area
WH-3: Warehouse Area

Tasks for these areas include demolition of the concrete floor, removal of the underlying radioactive material, backfill of excavations, and pouring of new concrete floors.

Outdoor Areas

Off-site transportation and disposal of waste pile.
Final excavation and backfill of EA-12.
Application of the asphalt base coat in remaining portions of EA-10 and 11.
Application of the parking lot asphalt top coat throughout the Site.

Post Removal Scan

Conduct a post removal gamma scan of the Site once all excavation and restoration work is complete.

2.2.1.2 Next Steps

Continue the demolition and excavation of WH-2.

2.2.2 Issues

Logistical challenges will occur while attempting to conduct removal work inside the building supply center while the business is operational. The goal is to minimize the disruption of the business operations.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

On May 13, 2016, ERRD Director authorized verbal funding in the amount of $500,000.00 in mitigation funding and $100,000.00 in RST contractor funding for a total project ceiling of $600,000.00 to initiate an emergency Comprehensive Environmental Response Compensation and Liability Act (CERCLA) removal action at the Niagara Falls Boulevard Site.

On July 14, 2016, the ERRD Deputy Director verbally authorized $500,000 in mitigation funding for a total project ceiling of $1,100,000.00 to continue the CERCLA removal action at the Niagara Falls Boulevard Site.

On September 28, 2016, the Niagara Falls Boulevard Site Action Memo was signed by USEPA Headquarters.

On September 29, 2016, an additional $950,000.00 was authorized in mitigation funding to Task Order 23 with Guardian Environmental Solutions.

On October 22, 2016, OSC Daly transferred $200,000.00 from extramural cost (Original Total $707,000.00) to the RST2 costs. The new total budgeted ceiling for RST2 is $518,000.00. Remaining extramural cost is $507,000.00.

On January 09, 2017, $435,000.00 was authorized in mitigation funding to bring the total mitigation ceiling to $2,385,000.00.

On May 03, 2017, $215,000.00 was authorized in mitigation funding to bring the total mitigation ceiling to $2,600,000.00

On June 29, 2017, an additional $50,000.00 was requested in mitigation funding to Task Order 23 with Guardian Environmental Solutions. The new Task Order ceiling will be $2,650,000 once authorized.

On July 15, 2017, OSC Daly transferred $100,000.00 from extramural cost (Original Total $707,000.00) to the RST2 costs. The new total budgeted ceiling for RST2 is $618,000.00. Remaining extramural cost is $407,000.00.

On July 17, 2017, an additional $50,000.00 was authorized and added to mitigation funding for Task Order 23 with Guardian Environmental Solutions. The new Task Order ceiling is $2,650,000 once authorized.

On January 19, 2018, an additional $1,000,000.00 was requested in mitigation funding to Task Order 23 with Guardian Environmental Solutions. The new Task Order ceiling will be $4,167,639.69 once authorized.

On July 12, 2018, an additional $1,000,000.00 was requested in mitigation funding to Task Order 23 with Guardian Environmental Solutions. The new Task Order ceiling will be $5,167,639.69 once authorized.

On August 14, 2018, an additional $2,000,000.00 was requested in mitigation funding to Task Order 23 with Guardian Environmental Solutions. The new Task Order ceiling will be $7,167,639.69 once authorized.

On September 20, 2019, the Niagara Falls Boulevard Site Action Memo requesting a ceiling increase was signed by USEPA Headquarters.

On September 24, 2019, an additional $2,500,000 was authorized and added to mitigation funding for Task Order 23 with Guardian Environmental Solutions. The new Task Order ceiling is $9,667,639.69 once authorized. An additional $150,000 was added to the START contractor, Weston Solutions, Inc.

*The costs below includes pending costs including T&D.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	$9,667,639.69	$8,217,793.89	$1,449,845.80	15.00%
TAT/START	$755,360.00	$645,774.35	$109,585.65	14.51%
Intramural Costs				
Total Site Costs	$10,422,999.69	$8,863,568.24	$1,559,431.45	14.96%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer
GES Health and Safety Officer
Project Health Physicist, David Kappelman

2.5.2 Liaison Officer

2.5.3 Information Officer

Mike Basile is the lead USEPA Public Affairs Official.

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies
NYS DEC
NYS DOH
Niagara County DOH

4. Personnel On Site

EPA Region 2 OSC	1
EPA ERRS Contractor	6
EPA START Contractor	2

5. Definition of Terms

No information available at this time.

6. Additional sources of information

7. Situational Reference Materials

No information available at this time.